

WHAT IS CLAIMED IS:

1. Target viewing apparatus comprising a plurality of spaced electronic viewing cameras for viewing a predetermined region and for providing respective image signals, the field of view of at least two viewing cameras overlapping in at least a part of said region, identification means for identifying or detecting a target object within said part of said region, and control means responsive to said identifying means for selecting an image signal from a selected one of said at least two cameras, wherein said control means includes means for assessing the pose of the target and selection means arranged for selecting the said one camera at least partly upon the assessed pose.
2. Apparatus according to claim 1 wherein the selection means is arranged for selecting the said one camera to which the target is judged to present a pose nearest to a required pose.
3. Apparatus according to claim 2 wherein the required pose is a predetermined pose.
4. Apparatus according to claim 2 and including means for determining parameters associated with the target and/or other parts of the said part of said region, and for determining the required pose as a function thereof.
5. Apparatus according to claim 4 wherein the step of determining the required pose is made in conjunction with a standard predetermined pose.
6. Apparatus according to claim 4 wherein the determined parameters include at least one of target location, velocity/speed, and target environment.

7. Apparatus according to claim 1 wherein the selection means comprises means for confirming that target is not excessively obscured from the view of the camera to be selected.

8. Apparatus according to claim 1 wherein said assessing means includes means for determining the velocity of the target and for assessing the pose at least in part in dependence thereon.

9. Apparatus according to claim 1 wherein said assessing means includes means for determining the location of the target in relation to a map of the region and for assessing the pose at least in part in dependence thereon.

10. Apparatus according to claim 1 wherein said assessing means includes means for analysing the signal from a said viewing camera viewing the target, or a further camera viewing the target, and for assessing the pose at least in part in dependence thereon.

11. Apparatus according to claim 10 wherein the further camera is arranged for viewing substantially all of the predetermined region.

12. Apparatus according to claim 10 wherein said assessing means includes means for measuring a visible characteristic of the target and for assessing the pose at least in part in dependence thereon.

13. Apparatus according to claim 12 wherein said visible characteristic is a flesh-tone area, said assessing means includes means for measuring the area and for assessing the pose at least in part in dependence thereon.

14. Apparatus according to claim 10 wherein the target is specified to have a predetermined general three dimensional shape, said assessing means includes means for detecting a two dimensional image

shape derived therefrom and for assessing the pose at least in dependence thereon.

15. Apparatus according to claim 14 wherein the target has a specified rigid shape.

16. Apparatus according to claim 14 wherein the target has a specified flexible shape and the assessing means includes means for modelling the flexible shape and matching a two dimensional image shape thereto, whereby to assess the pose.

17. Apparatus according to claim 1 wherein the assessing means is arranged so that the manner of assessing pose can change over time.

18. Apparatus according to claim 1 including means for controlling the plurality of cameras to track the target as it moves between the fields of view of different cameras.

19. Apparatus according to claim 18 arranged such that not all the of the plurality of cameras are simultaneously active, but wherein at least one of said at least two cameras is activated in the presence of said target in the said part of said region.

20. Apparatus according to claim 19 wherein at least said two cameras are activated in the presence of said target in the said part of said region.

21. Apparatus according to claim 20 wherein selection of said one camera is by selection of its image signal.

22. Apparatus according to claim 1 wherein selection of said one camera is effected by selective activation thereof.

23. Apparatus according to claim 1 wherein the presence of the target is initially identified from at least one said image signal by detection of movement.

24. Apparatus according to claim 1 wherein the presence of the target is initially identified from at least one said image signal by detection of a predetermined colour, hue, texture and/or shape.

25. Apparatus according to claim 1 wherein the presence of a target is detected by an alarm sensor associated with said part of said region.

26. Apparatus according to claim 1 wherein the control means is arranged to alter the mode of identifying the target after an initial identification thereof.

27. Apparatus according to claim 1 wherein said selected camera is a video camera capable of continuous production of a said image signal.

28. Apparatus according to claim 1 wherein said selected camera is a digital photographic camera capable of providing image signals at discrete intervals.

29. Apparatus according to claim 1 and including means for displaying and/or recording the image signal from said selected camera.

30. A method of controlling a plurality of spaced electronic viewing cameras each viewing the same target object, the method comprising the steps of assessing the pose of the target and selecting an output image signal from one of said viewing cameras at least partly on the basis of the assessed pose.

31. A method according to claim 30 wherein the selecting step is such that the selected camera is that to which the target is judged to present a pose nearest to a required pose.

32. A method according to claim 31 wherein the required pose is a predetermined pose.

33. A method according to claim 31 wherein parameters associated with the target are determined, and the required pose is determined as a function thereof, optionally in conjunction with a standard pose.

34. A method according to claim 33 wherein the determined parameters include at least one of target location, velocity/speed, and target environment.

35. A method according to claim 30 and including the step of confirming that target is not excessively obscured from the view of the camera to be selected.

36. A method according to claim 30 wherein the assessing step includes determining the velocity of the target and assessing the pose at least in part in dependence thereon.

37. A method according to claim 30 wherein the assessing step includes determining the location of the target in relation to a map of the region and assessing the pose at least in part in dependence thereon.

38. A method according to claim 30 wherein the assessing step includes measuring an intrinsic characteristic of the target and assessing the pose at least in part in dependence thereon.

39. A method according to claim 38 wherein the intrinsic characteristic is measured by an analysis of an image signal.

40. A method according to claim 39 wherein said intrinsic characteristic is a flesh-tone area, and said assessing step means includes measuring the area and assessing the pose at least in part in dependence thereon.

41. A method according to claim 38 wherein the target is specified to have a predetermined general three dimensional shape, and said assessing step includes detecting a two dimensional image shape derived from the three dimensional shape and assessing the pose at least in part in dependence thereon.

42. A method according to claim 41 wherein the target has a specified rigid shape.

43. A method according to claim 41 wherein the target has a specified flexible shape and the assessing step includes modelling the flexible shape and matching a two dimensional image shape thereto, whereby to assess the pose.

44. A method according to claim 30 including the step of controlling the plurality of cameras to track the target as it moves between the fields of view of different cameras.

45. A method according to claim 44 wherein the controlling step is such that not all the of the plurality of cameras are simultaneously active, but wherein at least one of said at least two cameras are activated when said target is present in said overlapped fields.

46. A method according to claim 45 wherein at least said two cameras are activated when said target is present in said overlapped fields.

47. A method according to claim 30 wherein said selecting step comprises selection of the image signal of said one camera.

48. A method according to claim 30 wherein said selecting step includes activation of said one camera.

49. A method according to claim 30 and including the step of initially identifying the presence of the target from at least one said image signal by detection of movement.

50. A method according to claim 30 and including the step of initially identifying the presence of the target from at least one said image signal by detection of a predetermined colour, hue, texture and/or shape.

51. A method according to claim 30 and including the step of initially identifying the presence of the target by an alarm sensor associated with said part of said region.

52. A method according to claim 30 wherein information concerning said target is collected and analysed over a period of time to enable subsequent identification thereof.

53. A method according to claim 30 and including the step of displaying and/or recording the image signal from said selected camera.